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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,070	11/28/2001	Nicolo Manaresi	00AG14453318	1132

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CHRISTOPHER F REGAN  
ALLEN, DYER, DOPPLET, MILBRATH & GILCHRIST  
255 SOUTH ORANGE AVENUE  
SUITE 1401  
ORLANDO, FL 32802-2343

EXAMINER

MARTIR, LILYBETT

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Officé Action Summary

Application No.

09/996,070

Applicant(s)

MANARESI ET AL.

Examiner

Lilybett Martir

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 37-39 is/are allowed.
- 6) ☒ Claim(s) 16-19, 21-26, 28-32 and 34-36 is/are rejected.
- 7) ☒ Claim(s) 20, 27 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16-17,23-24,29-30 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bourland et al. (Pat. 5,010,772) in view of Naito et al. (Pat. 6,462,932).

- With respect to claims 16,23,29 and 35, Bourland et al. teaches an array of pressure sensing pixel capacitors or sensing adjacent metal plates as in elements 22 and 24 comprising column and row electrodes orthogonal to each other and spaced by an elastically compressible dielectric 20 as noted in Figure 2, and a system for biasing and reading the capacitance of said capacitors which are comprised by column electrode and row electrode selection circuits as are switching elements 25<sub>1</sub>-25<sub>3</sub> and 26<sub>1</sub>-26<sub>3</sub> and a logic circuit for the sequential scanning of the pressure sensing arrangements(Col. 7, lines 49-68) as noted in Figures 4-6 (Col. 2, lines 41-68). Bourland et al. fails to specifically teach the utilization of a plurality of individually spaced apart elastically compressive dielectric pads positioned between the crossing of each electrode. Naito et al. teaches a multilayer capacitor device in which he incorporates multiple

electrodes as in elements 33 and 34 that are separated by plural dielectric portions 32 as noted in Figures 2 and 2A (Col. 4-5, lines 66-6).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the pressure measuring system of Bourland et al. using the teachings of the multiplayer capacitor of Naito et al. to further make said system more stable while decreasing the equivalent series inductance (ESL) on it.

- With respect to claims 17, 24 and 30, Bourland et al. teaches the utilization of column and row electrodes as the ones disposed in Figure 8 in layers 36 and 40 that comprise a fabric as in elements 42 and 43 including horizontal oriented threads of dielectric material and warp oriented threads of dielectric material (Col. 8, lines 9-13).
- With respect to claim 36, Bourland et al. teaches producing distribution maps of pressure distribution. He fails to teach the specific utilization and incorporation of the claimed device in a sail. Bourland does teach a capacitive system to be utilized for pressure distribution measuring to be utilized in medical environments. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the pressure measuring system of Bourland et al. using the same capacitive arrangement as taught by him in a different application to monitor pressure as he does to therefore make a device versatile.

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3. Claims 18,25 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bourland et al. (Pat. 5,010,772) as modified by Naito et al. and further in view of Nomura et al. (Pat. 5,920,454).

- With respect to claims 18,25 and 31, Bourland fails to teach the utilization of a conductive paint to form the electrodes. Nomura et al. teaches the arrangement of a conductive paint 5 arranged over dielectric 4. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the pressure measuring system of Bourland et al. using the teachings of the capacitive arrangement of Nomura et al. by utilizing a conductive paint to form the electrodes therefore making system smaller and thinner, so it is capable of being used in smaller spaces.

4. Claims 19,21-22,26,28,32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bourland et al. (Pat. 5,010,772) as modified by Naito et al. and further in view of Wright et al. (Pat. 4,348,635).

- With respect to claims 19,26 and 32, Bourland et al. fails to teach the utilization of a conductive tape to form the electrodes. Wright et al. teaches the arrangement of a dielectric element 13 joined on each side by conductive strips or tapes (Col. 3, lines 32-40). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the pressure measuring system of Bourland et al. using the teachings of the capacitive arrangement of Wright et al. by utilizing conductive

adhesively secured taped which allows for the system to be more flexible and easier to manufacture.

- With respect to claims 21,28 and 34, Bourland et al. teaches utilizing a dielectric, which is a gas filled cushion (Col. 4, lines 8-10).
- With respect to claim 22, Bourland et al. fails to teach the specific utilization and incorporation of the claimed device in a sail. Bourland does teach a capacitive system to be utilized for pressure distribution measuring to be utilized in medical environments. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the teachings of the pressure measuring system of Bourland et al. using the same capacitive arrangement as taught by him in a different application to monitor pressure as he does to therefore make a device versatile.

#### ***Allowable Subject Matter***

5. Claims 37-39 are allowed. Claims 20,27 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, or if the limitations in said claim are incorporated on the base claim, including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

6. Applicants amendments raised new issues that made necessary the new art to be applied and therefore, the arguments presented against Bourland et al. are said to be moot due to the new grounds of rejection.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

8. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilybett Martir whose telephone number is (571)272-2182. The examiner can normally be reached on 9:00 AM to 5:30 PM.

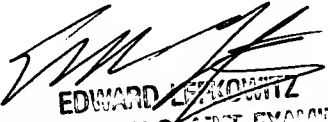
10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571)272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lilybett Martir  
Examiner  
Art Unit 2855

LCM

  
EDWARD LEIKOWITZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2000